Section 4.0: Integrating CSENet 2000 in a State CSE System

4.0 INTEGRATING CSENET 2000 IN A STATE CSE SYSTEM

The implementation of any new module or functionality in a state CSE system requires careful analysis and planning to ensure its success. This section identifies high-level system implementation tasks states should consider as they plan for the integration of the CSENet 2000 application with their CSE systems. This section also describes how some states have planned and accomplished these tasks, as well as alternative implementation strategies.

Information about telecommunications and the electronic exchange of files containing CSENet transactions can be found in Section 2: *OCSE Network Architecture* and Section 3: *CSENet 2000 Application Suite*. In-depth information regarding the CSENet requirements are described in Section 5: *Transaction Structure* and Appendix D: *Transaction Functional Matrix* (TFM). The TFM provides the purpose and possible business use for each transaction. Programming staff can use this information to make informed decisions about how to process and handle specific transactions.

Implementation of CSENet in state CSE systems is a federal certification requirement. In order to meet certification requirements, a state CSE system must have implemented the:

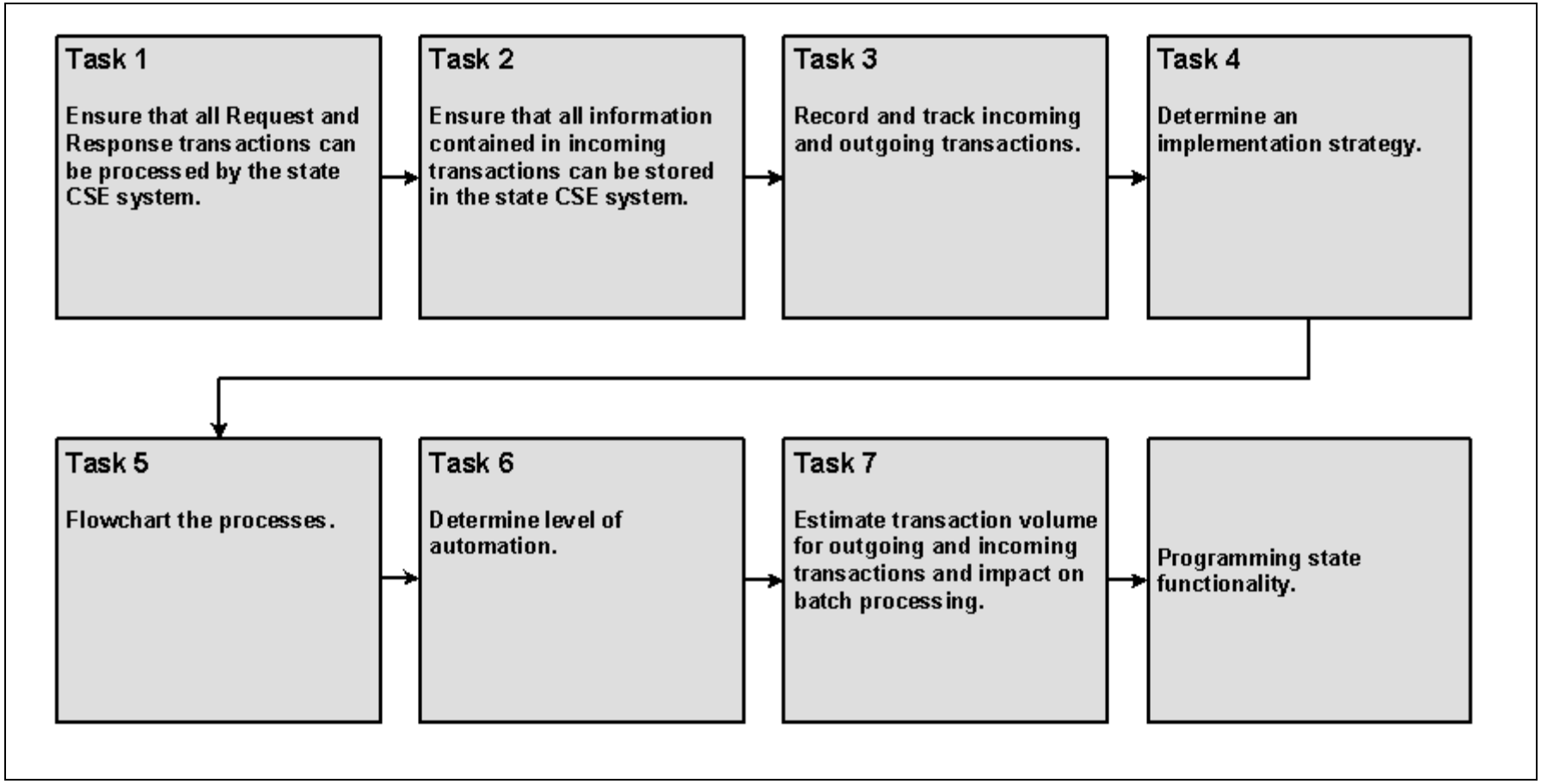
- Quick Locate (LO1) and Case Status Information (CSI) functions by October 1, 2000 for conditional certification; and

- Enforcement (ENF) and Managing State Cases (MSC), formerly Miscellaneous, functions by October 1, 2001.

4.1 Planning for Implementation

When planning for implementation, many issues must be addressed and decisions made for the implementation to proceed and be successful. This section describes the recommended tasks that should be addressed to ensure successful implementation of CSENet in a state CSE system. Figure 4-1 displays a flow chart of the seven recommended tasks.

Figure 4-1: Recommended System Implementation Tasks



4.1.1 TASK 1: ENSURE THAT ALL REQUEST AND RESPONSE TRANSACTIONS CAN BE PROCESSED BY THE STATE CSE SYSTEM

To complete this task, states should verify that their system contains all the data elements specified in the Data Block Record Layout (Appendix C) and Section 5: Transaction Structure. If states determine that one or more elements are not in their system, they should initiate the necessary action to include them so the state can send Request/Response transactions.

4.1.2 TASK 2: ENSURE THAT ALL INFORMATION CONTAINED IN INCOMING TRANSACTIONS CAN BE STORED IN THE STATE CSE SYSTEM

Task 2 addresses a fundamental issue of how to store, handle, and treat incoming transactions from other states. States must review their case and database structure to determine whether data such as name, addresses, and order amounts will overwrite existing case information or whether it should be stored in a separate area or portion of the case record.

Many states have chosen not to overwrite existing case information, but to store it in a separate case area. They have also allowed for the possibility that there could be multiple occurrences of interstate case and account data concerning the same NCP and CP on their system. For example, states A, B, and C may all have cases or orders involving the same state. If each state sends information about its cases, each discrete set of information can be stored for use at a future date.

4.1.3 TASK 3: RECORD AND TRACK INCOMING AND OUTGOING TRANSACTIONS

It is important that the case record (or log) is updated each time a CSENet transaction is sent or received. The transaction date and any other information the state may want to include is also helpful. In addition, transactions that require action within a timeframe specified by a statute or regulatory provision must be tracked. Further, the caseworker must be alerted or systemic action instituted if an action or a response has not been received within a specified period.

For example, the Code of Federal Regulations (CFR), Section 303.7 (b) (5) states that the initiating state must: “Notify the IV-D agency in the responding state within 10 working days of receipt of new information on a case by submitting an updated form and any necessary additional documentation.”

Once the new information has been added to the initiating state’s CSE system, the system should:

- automatically recognize that the information was added or changed and needs to be sent to the other state;

- automatically generate a CSENet 2000 transaction to route the new information to the other state(s) within a 10-day period; and

- log the fact that the new information was sent to another state (or other states).

If the system is not designed to automatically detect new information, then the system should alert the worker approximately seven days after the new information was posted. This timeframe should allow sufficient time to forward the new information to the other state(s) before the 10-day limit has expired.

4.1.4 TASK 4: DETERMINE AN IMPLEMENTATION STRATEGY

An implementation strategy is one of the key factors for any system integration effort. The critical issues involve whether to integrate transaction types – an incremental approach – or to make all transactions, functions, and capabilities of CSENet available at the same time. Many states are fully functional and nearly all have chosen the incremental approach. This approach is easier for the user because it does not require as much to learn and remember. It also aids in programming efforts, because it narrows the focus, thereby giving the state an opportunity to gain valuable experience working with and learning how to construct and receive transactions.

States may also consider the single transaction concept using the CSI transaction format as an alternate programming approach. This concept of sending all data between states germinated during discussions by the CSENet 2000 Phase II Implementation Work Group and was formalized in the Consensus Plan. Detailed information about this alternative programming strategy can be found in Section 5.

4.1.5 TASK 5: FLOWCHART THE PROCESSES

One of the best methods to determine how to process each transaction type is to construct a flowchart. A flowchart helps both program and technical staff decide under what circumstance transactions should be sent and how incoming data should be handled. This method often provides the opportunity to maximize the level of automation and can help prevent future problems by depicting how a specific module will function under all conditions.

4.1.6 TASK 6: DETERMINE LEVEL OF AUTOMATION

Determining the level of automation often affects the success of a system implementation project. Generally, the more the system can do automatically based on information within the case, the more efficient the process.

4.1.7 TASK 7: ESTIMATE TRANSACTION VOLUME FOR OUTGOING AND INCOMING TRANSACTIONS AND IMPACT ON BATCH PROCESSING

States should estimate the number of transactions they expect to send and receive daily. This will help determine how long it will take the system to assemble and send the daily file as well as to determine the size of the incoming file from other states. These estimates are critical to ensure that both outgoing and incoming files can be accommodated in the system's batch window.

Note: Some states may receive more information from another state than just the data relevant to the original request. In fact, they may receive all information another state has on its case. In this instance, some states have chosen to compare this incoming data with the same case information previously sent to them, then provide only changed data to the caseworker.

4.2 Moving into Test

Some states move from implementing CSENet to testing state functionality, while others move directly into production. States should weigh the benefits and consequences of both options, then determine their approach to exchanging interstate case information. Refer to Section 8: *Technical Support for States* for information about support that is provided by the CSENet team. Information about testing available for states is found in the next section.

4.3 Testing State Functionality

This section describes the process that state CSE systems may use to test newly developed functionality. This includes the types of testing tools available and how to request support for testing state system programming.

4.3.1 TESTING WITH THE OCSE SERVER

The CSENet State Interface Application, referred to as the interface, is used to transfer CSENet data between the OCSE server and a state CSE system. The application reads and writes to a state's Interface data sets as defined on the State Profile (Appendix I). An interface session may be executed to a state in the following ways:

- Upon request from a state, an automated test interface session may be conducted for one or more days. Often a state requests automated interface sessions to pick up and drop off data from and to its test data sets to test new programming in its CSE system.

- A manual interface session may also be requested. If a state anticipates making more than one request for a manual execution, it is advisable for the state to establish an automated execution time, since no human intervention is required.

Data received in the state CSE system from interface testing should be closely reviewed to confirm that it arrived in the expected format. It is very common to experience record length errors when first establishing the interface to a state.

4.3.1.1 Test Deck Application

An application called the Test Deck was developed to test the CSENet programming on a state CSE system, specifically the system's ability to process CSENet transactions. The Test Deck is used to generate a file containing a variable number of CSENet transactions using any valid transaction types. Usually the Test Deck file contains more than 100 transactions, one for each valid transaction type. After being generated, the Test Deck file is uploaded to the state's Incoming Transactions test data set as specified in the Test Data Set Names section of the State Profile. States should contact their CSENet technical representative or the CSENet Service Desk to request the Test Deck.

4.3.1.2 Transaction File Analysis and Validation

Several tools have been developed on the OCSE server to test the validity of CSENet transactions generated by a state. The tools available for transaction file analysis include the following:

- Each transaction from a state undergoes the transaction validation process to verify that it meets specifications defined in the Data Block Record Layout. Each error in a transaction generates an error message that is written to a file uploaded into the state's Invalid Transactions data set. (See Section 3.2.2.1 for more detailed information on transaction validation.)

- A program is available to print the field contents of CSENet transactions to a file. The output from this program, referred to as a record dump, is usually used to isolate a field generating an error. A record dump is particularly useful when the state wants CSENet technical support to confirm the data being received and to assist in explaining the reason for the error. A record dump can be faxed or e-mailed upon request.

- A program is available to print the field contents of an Invalid Transactions file, which contains error messages for invalid transactions from a state. The output from this program, referred to as an error dump, is normally used to aid the error analysis process. An error dump can be faxed or e-mailed upon request.

To request a record or error dump, contact the CSENet technical representative or the CSENet Service Desk.

4.3.1.3 State Transaction Loopback Testing

The Transaction Loopback Test capability provides CSENet 2000 users the ability to generate and tailor transactions for verifying state CSE system programming. For example, a state creates the desired transaction with the Other FIPS code set to the originating state's FIPS code. After creation, the OCSE server interfaces with the state CSE system, based on a predetermined schedule or by request, uploads the transaction file, performs the validation process, and returns the Valid Transactions, Validation, and Error Reports to the requesting state. With the exception of establishing the pickup schedule, this capability does not require any interaction with the state's CSENet technical representative.

4.3.1.4 Testing with Another State

Two states often agree to exchange test transactions with each other. To do this, the following actions must be taken:

- An Exchange Agreement must be established between the two states on the OCSE Development server, which is used for testing. Consult Section 3 for information on establishing an Exchange Agreement.

- Test data sets are created on both state systems and the names provided to the states' CSENet technical representative.

- Transactions are picked up from the Outgoing Transactions test data set via the interface from one or more states. The test transactions are validated for errors. Valid transactions are forwarded to the state(s) participating in the testing. The Invalid Transactions Report, Validation Report, Interface Report, and Interface Log are sent to the participating states.

Usually, if testing is continuous, automated interface execution times are set up to pick up and drop off test data to the testing states at specified times each day. After completion of the steps above, a state may refer to Appendix N to review a set of possible test scenarios that states can request.

4.3.2 MOVING INTO PRODUCTION

States that move from having no interstate communications in production to communicating with other states need to provide their CSENet technical representative with Production Data Set names and follow the Exchange Agreement Process referred to in Section 3. States that are already communicating with other states in production, but want to increase their functionality (expand their exchange partners or add Function codes to existing exchange partners) need to adhere to the Exchange Agreement Process. Additional information regarding technical support is found in Section 8.